## DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-000510

Address: 333 Burma Road **Date Inspected:** 18-Sep-2007

City: Oakland, CA 94607

**OSM Arrival Time:** 630 **Project Name:** SAS Superstructure **OSM Departure Time:** 1400 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island Contractor: **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes No Xu Bing **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** N/A

## **Summary of Items Observed:**

CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the fabrication of the Mock-up 77 and 89 meter elevation scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

Tower Mock-up 77 Meter Elevation Ultrasonic testing (UT) repairs

The QA inspector performed dimensional verifications of the excavated areas located at the skin A and E. The approximately percentages of the length excavated and being repaired by ZPMC for every 2000 mm of length are listed as follows:

Skin A

Joint # 1, 30 %

Joint # 2, 90 %

Joint #3, 52 %

Joint # 4, 55 %

Skin E

Joint #1, 26 %

Joint #2, 78 %

Joint #3, 50 %

## WELDING INSPECTION REPORT

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Tower Mock-up 89 Meter Elevation

The QA performed ultrasonic testing (UT) on the side A & B at the junction of the diaphragm plates SA-1236 and A13. The evaluation of the top quarter, middle half and bottom quarter was performed with the 70° angle wedge transducer. The QA inspector performed 20 % Ultrasonic testing (UT) verifications on the top diaphragm splice plate SA-104 at the Y location marks 700 mm to 1100 mm. The QA inspector discovered that the weld areas tested appeared to be in general compliance with AWS D1.5 2002. See UT report TL\_6027 generated on this date. Note: ZPMC & ABF at this time had not provided weld maps for this Tower Mock-up in accordance with

## **Summary of Conversations:**

contract documents.

The QA inspector had a conversation with Task Leader Robert Cuellar. Mr. Cuellar relayed to the QA inspector that due to the inclement weather conditions ZPMC would stop working on the fabrication for the San Francisco Oakland Bay Self Anchored Suspension Bridge at 1300 hours on this date until further notice.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Acuna, Alfredo	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer